

Dissecting Idiosyncratic Income Risk*

Elin Halvorsen[†]

Hans A. Holter[‡]

Serdar Ozkan[§]

Kjetil Storesletten[¶]

October 20, 2019

Abstract

The distribution of earnings risk has gotten much attention in recent literature and it has been documented that it displays pronounced non-Gaussian features as well as asymmetric mean reversion. In this paper we study the determinants of earnings risk as well as the insurance against it, using *Norwegian Registry* data. In the first part of the paper we decompose earnings risk into changes in hours and changes in wage rates and study their contributions to earnings dynamics and we study the life-events associated with large earnings changes. We find that for high-earners large earnings changes are mostly driven by changes in wages, and that hours are more important for workers with low earnings. For hours, negative changes are transitory and positive changes are persistent. Wage shocks are persistent except at the top of the earnings distribution. Like earnings changes, wage and hours changes are also left-skewed and leptokurtic with magnitudes and patterns similar to those of earnings growth. However, co-movement between the two is the largest driver of the earnings growth distribution. The negative skewness and high kurtosis of earnings shocks are driven by job-stayers and closely connected to sickness. In the second part of the paper we study insurance against earnings shocks. We ask to what degree individual earnings shocks are transmitted to household labor income, household disposable income and ultimately to consumption. We find that spouses provide significant insurance but do not change their earnings as a response to changes in their husband's income. Furthermore the redistributive Norwegian public insurance system reduces household income and consumption risk significantly but much more so for low-income families. Thus, we also find a less pronounced left skewness and excess kurtosis in the household disposable income growth distribution.

JEL Codes: E24, J24, J31.

Keywords: Earnings dynamics, Income shocks, Insurance, Wages, Hours, Higher-order earnings risk, Skewness, Kurtosis.

*We thank seminar participants at the 2017 NBER Summer Institute; Working Group on Consumption - Micro to Macro (Cambridge), the 2017 Meeting of the Society for Economic Dynamics (Edinburgh), the 2018 North American Winter Meeting of the Econometric Society (Philadelphia), Toulouse School of Economics, University of Cologne, University of Bonn, Statistics Norway and the University of Oslo for helpful comments and suggestions. Hans Holter and Kjetil Storesletten are grateful for support from the Research Council of Norway, grants number 261655 (INTPART) and 219616, 267428 (The Oslo Fiscal Studies program).

[†]Statistics Norway; elin.halvorsen@ssb.no; www.ssb.no/en/forskning/ansatte/elin-halvorsen

[‡]University of Oslo; hans.holter@econ.uio.no; <https://sites.google.com/site/hansaholter/>

[§]University of Toronto; serdar.ozkan@utoronto.ca; www.serdarozkan.me

[¶]University of Oslo; kjetil.storesletten@econ.uio.no; <http://folk.uio.no/kjstore/>